Appl. No. 10/828,745
Amendment dated April 28, 2008
Reply to Office action of January 28, 2008

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-37. (canceled)

38. (currently amended) A system for determining a GNSS-defined position of a single point on a structure, which system comprises:

a redundant an array of multiple master and slave GNSS receivers;

multiple master and slave antennas each connected to a respective receiver said master and slave receivers respectively and mounted in fixed relation relative to each other on said structure;

a common clock or synchronized clocks connected to said receivers:

an a non-GNSS orientation device mounted on said structure and adapted for determining its orientation; and

a position solution processor configured means for computing a GNSS-defined position solution for said structure point utilizing the output of said receivers and said orientation device in unison where: (1) GNSS signals received by said antennas are input to said position solution processor; (2) received signals are sampled at the same instant by operation of a said common sample clock or synchronized clocks; and (3) (2) the known relative orientation of said structure is input into the means for computing a position solution and utilized thereby for determining a non-relative, GNSS-defined position of said point; and (3) GNSS positioning information from said receivers is incomplete due to

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said structure at least partially blocking GNSS signals from at least one of said

antennas; ~~and~~

~~said position solution processor is adapted for computing the location of the single~~

~~point on the structure.~~

39. (canceled)

40. (canceled)

41. (currently amended) The system according to claim 38 wherein said

~~multiple~~ master and slave receivers are incorporated into a single receiver unit.

42. (canceled)

43. (previously presented) The system according to claim 38 wherein

said orientation device comprises a compass.

44. (currently amended) The system according to claim ~~38~~ 47, which

includes:

~~said receiver array including a master receiver and a slave receiver;~~

said slave receiver including a temperature sensor comprising [[;]]

a thermocouple ~~attached to said temperature sensor~~; and

said slave receiver compensating for temperature drift.

45. (previously presented) The system according to claim 38 wherein

said structure comprises a marine vessel.

46. (previously presented) The system according to claim 38 wherein

said structure is terrestrial.

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47. (currently amended) A system for determining a GNSS-defined

position of a single point on a structure, which system comprises:

a redundant an array of multiple master and slave GNSS receivers incorporated into a

single receiver unit;

multiple antennas each a master antenna connected to a respective receiver said

master receiver;

multiple slave antennas connected to said slave receiver;

and said master and slave antennas being mounted in fixed relation relative to each

other on said structure;

a common clock connected to said receivers;

an orientation device mounted on said structure and adapted for determining its

orientation, said orientation device comprising a GNSS receiver

processing data from two or more antennas;

a position solution processor configured means for computing a GNSS-defined position

solution for said structure point utilizing the output of said receivers in unison

where: (1) GNSS signals received by said master antenna and one of said slave

antennas are input to said position solution processor; (2) received signals are

sampled at the same instant by operation of [[a]] said common sample clock;

and (3) the known relative orientation of said structure is input into the

position solution processor; and (2) GNSS positioning information from said

receivers is incomplete due to said structure at least partially blocking GNSS

signals from at least one of said antennas;

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~~said position solution processor is adapted for computing the location of the single point on~~

~~the structure;~~

a plurality of switches each associated with a respective <u>slave</u> antenna; and

~~said position solution processor being preprogrammed~~ <u>means</u> for operating said

switches to select one or more of said <u>slave</u> antennas for providing signal input

to ~~a respective~~ <u>said slave</u> receiver ~~substantially simultaneously~~.

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